Stock program EschmannStahl

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ES ULW 65 – 1.1191

ES ULW 65
1.1191
C45U
Soft annealed

Hardness:

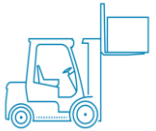
max 190 HB (650 N/mm²)

Characteristics & application:

Components for tools, base plates for tool- and fixture construction

Round dimensions																		
30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
210	220	230	240	250	260	270	280	290	310	320	330	340	350	360	380	400	420
450	480	500															

ES ULW 65 – 1.1730



ES ULW 65
1.1730
C45U
Soft annealed

Hardness:

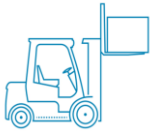
max 190 HB (approx 650 N/mm^2)

Characteristics & application:

Components for tools, base plates for tool- and fixture construction

Flat dimensions																	
15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
500	250	300	250	300	250	400	250	400	400	500	400	1010	400	500	400	800	400
1010	400	350	300	400	300	500	400	500	500	800	500	2000	500	800	500	1010	800
	500	400	350	500	350	800	500	800	800	1010	800		800	1010	800	2000	1010
	1010	500	400	800	400	1010	800	1010	1010	2000	1010		1010	2000	1010		2000
	2000	1010	500	1010	500	2000	1010	2000	2000		2000		2000		2000		
		2000	800	2000	800		2000										
			1010		1010												
			2000		2000												

ES ULW 65 – 1.1730



Material-Details

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110	120	130	140	150	160	175	185	195	205	215	235	255	305	325	355	375	405
800	350	500	400	1010	400	500	500	1010	600	1250	1250	1250	1010	1010	1010	1010	1010
1010	400	800	500	2000	500	800	800	2000	800								
2000	500	1010	800		800	1010	1010		1010								
	800	2000	1010		1010	2000	2000		2000								
	1010		2000		2000												
	2000																

425	455	475
1010	1250	1250

ES 120 K – 1.2083

ES 120 K
1.2083
Soft annealed
X40Cr14

Hardness:
max 241 HB (810 N/mm²)

Characteristics & application:
Hardenable, corrosion-resistant steel for compression and injection molds for processing aggressive plastics

Round dimensions																
20.5	31	41	51	61	71	81	91	101	111	121	131	141	151	161	172	182
202	222	252	282	303	353											

Flat dimensions																		
20	25	30	35	40	45	50	55	60	70	80	90	100	110	130	150	160	205	300
1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1010	1010	1010	1010	1010

ES Antikor S – 1.2085

ES Antikor S
1.2085
Quenched and tempered
X33CrS16

Hardness:
280 - 325 HB (950 - 1100 N/mm²)

Characteristics & application:
Quenched and tempered, corrosion-resistant plastic mold steel with excellent machining properties

Flat dimensions																		
20	25	30	35	40	45	50	56	60	65	70	75	80	85	90	95	100	110	120	130
500	500	500	500	500	500	500	1010	1010	1010	1010	1010	500	1010	500	1010	500	600	450	1010
1010	1010	1010	1010	1010	1010	1010	2000	2000				1010		1010		1010	1010	500	
2000	2000	2000		2000	2000	2000						2000						1010	

140	150	160	170	180	190	205	225	305	405
600	1010	1010	1010	1010	1010	1010	1010	1010	605
1010									

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ES Antikor SL

ES Antikor SL

Quenched and tempered
Special grade

Hardness:

280 - 325 HB (950 - 1100 N/mm²)

Characteristics & application:

This special material is a further development of 1.2085. ES Antikor SL is a corrosion-resistant plastic mold steel with excellent machinability, uniform strength across the entire cross-section, high dimensional stability and outstanding weldability.

Round dimensions																		
25.4	32.1	38.2	39.1	45.2	45.3	51.7	52.0	58.1	63.6	71.0	76.2	76.4	77.3	82.0	83.5	90.0	90.1	90.5	100.2
101.0	102.1	103.3	111.2	114.4	116.0	120.1	120.2	131.7	133.7	141.2	141.9	142.6	153.6	154.4	160.1	182.3	183.0	186.0	206.6
223.0	322.7	323.6																	

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ES Antikor SL

Flat dimensions																	
13	20	25	32	35	40	45	50	58	60	70	76	80	90	100	115	140	180
1600	350	2000	350	400	350	400	350	400	350	350	1010	350	350	350	300	300	350
2000	400		550	440	450	550	400	500	400	400	2000	500	400	400	350	350	450
	550		1010	550	500	650	450	1010	550	450		550	450	700	400	400	700
	1010		2000	850	1010	1010	550	2000	1010	500		850	500	1010	450	550	1250
	2000			1010	1250	1500	600		1250	1010		1250	550	2000	550	600	
				2000	2000	2000	650		2000	2000		1500	1250		600	650	
							700					2000	2000		650	700	
							950								700	750	
							1010								1250	1010	
							2000								2000	1250	
																2000	

200	220	245	305	336	425
350	450	350	500	450	400
400	700	500	900	800	500
500		900	1010	900	1010
650		1010	1250	1010	1250
700		1250			

ES 100 K – 1.2162

ES 100 K
1.2162
Soft annealed
21MnCr5

Hardness:
210 HB (710 N/mm^2)

Characteristics & application:
Good polishability; cold-insertable case-hardening steel for plastic molds

Flat dimensions																	
20	25	30	35	40	45	50	55	60	70	80	90	100	110	120	130	160	205
1010	1010	1010	2000	1010	2000	1010	2000	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010
2000	2000	2000		2000		2000		2000	2000	2000	2000						

ES Aktuell – 1.2311

ES Aktuell
1.2311
Quenched and tempered
40CrMnMo7

Hardness:

280 - 325 HB (950 - 1100 N/mm²)

Characteristics & application:

Quenched and tempered plastic mold steel for material thicknesses up to 400 mm. For larger tool cross-sections, we recommend ES Multiform SL. Easy to polish, perfect for graining.

Round dimensions

192	202	212	222	232	252	272	282	303	323	353	383	403

Flat dimensions

21	26	31	36	41	51	56	61	66	71	81	86	91	102	112	122	130	140
1010	501	501	1010	501	501	1010	501	1010	501	501	1010	501	501	1010	501	1010	500
2000	1010	1010	2000	1010	1010	2000	1010		1010	1010	2000	1010	1010	2000	1010	2000	1010
	2000	2000		2000	2000		2000			2000		2000	2000				2000

150	160	175	185	195	205	215	235	255	275	305	325	355	405
1010	1010	1010	800	1010	450	1250	1250	1250	1250	1010	1010	1010	1010
2000													

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ES Aktuell S – 1.2312

ES Aktuell S
1.2312
Quenched and tempered
40 CrMnMo 6-8

Hardness:

280 - 325 HB (950 - 1100 N/mm²)

Characteristics & application:

Quenched and tempered plastic mold steel for mold frames and mounting plates; excellent machinability

Round dimensions																		
20.5	25.8	30.8	35.8	40.8	45.8	51	56	61	66	71	81	86	91.5	101.5	111.5	121.5	131.5	141.5
151.5	161.5	171.5	182	192	202	212	222	232	242	252	272	282	303	323	353	373	383	403
423	453	483	503	523	553	603	653	703	753									

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ES Aktuell S – 1.2312

Flat dimensions																	
21	26	31	36	41	46	51	56	61	66	71	76	81	86	91	96	102	112
501	251	301	501	301	501	401	501	401	501	1010	1010	801	501	501	1010	401	501
1010	401	401	1010	401	801	501	801	501	1010	2000	2000	1010	1010	801	2000	801	801
2000	501	501	2000	501	1010	801	1010	801	2000			2000	2000	1010		1010	1010
	1010	801		801	2000	1010	2000	1010						2000		2000	2000
	2000	1010		1010		2000		2000									
		2000		2000													

Flat dimensions																		
122	132	142	152	162	177	187	197	207	215	235	255	265	275	285	305	325	355	375
251	501	401	501	401	501	501	1010	501	1250	1250	1575	1250	1250	1250	1250	1010	1250	1010
401	1010	501	801	501	801	801	2000	801								1575		
501	2000	801	1010	801	1010	1010		1010										
601		1010	2000	1010	2000	2000		2000										
801		2000		2000														
1010																		
2000																		

ES Multiform SL

ES Multiform SL

Quenched and tempered
Special grade

Hardness:

280 - 325 HB (950 - 1100 N/mm²)

Characteristics & application:

Universally applicable tool steel, perfect for graining, can be structurally eroded, good polishing and welding properties, nitridable, chrome-platable, uniform strength across the entire cross-section, even with larger dimensions.

Flat dimensions																
25	30	35	40	50	60	70	80	90	100	110	120	130	150	175	205	255
1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1180	1180

275	305	325	355
1180	1300	1300	1300

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ES Antikor – 1.2316

ES Antikor
1.2316
Quenched and tempered
X38CrMo16

Hardness:

280 - 325 HB (950 - 1100 N/mm²)

Characteristics & application:

Corrosion-resistant, quenched and tempered mold steel which - due to its modified analysis - has a reduced delta ferrite content compared to the DIN material. This improves polishability, toughness and machinability.

Round dimensions																		
20.5	26	31	36	41	46	51	56	61	66	71	76	81	86	91	101	111	121	131
141	151	161	172	182	192	202	212	222	232	242	252	262	272	282	303	323	353	373
403	433	453	503	553														

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ES Antikor – 1.2316

Flat dimensions													
20	25	30	35	40	45	50	60	65	70	80	90	100	110	120
1010	1010	1010	1010	1010	1010	1010	1250	1010	1010	1010	1010	1250	1250	1250
2000	2000	2000	2000											

130	140	150	160	185	205	255	305	405
1600	1250	1250	1250	1250	1250	1250	1250	1250

ES 235 W – 1.2343

ES 235 W
1.2343
Soft annealed
X37CrMOV5-1

Hardness:
max 229 HB (770 N/mm²)

Characteristics & application:
Hot-work tool steel for extrusion dies and forging dies as well as plastic molds with high toughness requirements

Round dimensions																
192	202	212	222	232	242	252	262	272	282	292	303	313	323	333	353	363	378
383	403	423	433	453	483	503	523	563	603	663							

Flat dimensions															
20	25	30	35	40	45	50	55	60	70	80	90	100	110	120	130
1010	1010	500	1010	500	1010	500	1010	500	500	500	500	500	1010	1010	1010
		1010		1010		1010		1010	1010	1010	1010	1010			

140	150	160	170	185	190	205	215	225	235	245	255	275	305	355
1010	1010	1010	1250	1010	1250	1010	1010	1250	1010	1010	1250	1010	1250	1250

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ES Maximum 500 -1.2343 ESR

ES Maximum 500
1.2343 ESR
Soft annealed
X37CrMOV5-1

Hardness:
max 229 HB (770 N/mm²)

Characteristics & application:
Hot-work tool steel for die casting tools with the highest toughness requirements

Flat dimensions

41	51	61	71	76	81	86	91	96	102	112	122	142	152	172	192	225	255
502	502	502	502	502	502	502	502	502	1010	1010	1010	1010	1250	1250	1250	1250	1250

305	355	405	425	455	510	555	605
1250	1250	1250	1250	1250	1250	900	900

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ES 245 W – 1.2344

ES 245 W
1.2344
Soft annealed
X40CrMOV5-1

Hardness:

max 229 HB (770 N/mm²)

Characteristics & application:

Hot-work tool steel for extrusion and forging tools as well as plastic molds; increased wear resistance

Round dimensions																
192	202	212	222	232	242	252	262	282	303	323	353	383	403	423	453	503

Flat dimensions												
20	25	30	40	50	60	70	80	90	100	110	130	225
1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1010	1010	1010

ES Primus SL

Material-Details
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ES Primus SL

Soft annealed
Special grade
Only available as ESR

Flat dimensions				
225	255	305	355	405
1250	1250	1250	1250	1250

Hardness:

max 230 HB (780 N/mm^2)

Characteristics & application:

ES Primus SL is used in highly stressed die casting applications for aluminum, magnesium and other non-ferrous metals such as zinc, tin and lead as well as in tools for hot extrusion, forging dies, shearing blades and hot working tools that are subjected to impact loads. ES Primus SL is the right choice when high resistance to thermally and mechanically induced cracking is required. Here, the special material increases the service life of molds and tools thanks to its thermal shock resistance and maximum toughness. ES Primus SL has excellent polishing properties. Exclusively available as ESR.

ES 65 S – 1.2363

ES 65 S
1.2363
Soft annealed
X100CrMoV5

Flat dimensions								
40	50	60	70	80	100	120	150	200
1010	1010	1010	1010	1010	500	500	500	400

Hardness:

max 241 HB (810 N/mm^2)

Characteristics & application:

Air-hardening special cold work steel for cutting and punching tools, molds for plastics processing, rolls, shearing knives, thread rolling dies, cold stamping tools and measuring tools

ES 265 W – 1.2367

ES 265 W
1.2367 EST
Soft annealed
X38CrMoV5-3

Hardness:
max 229 HB (770 N/mm²)

Characteristics & application:
Extrusion dies, die inserts, die casting tools, mandrels

Flat dimensions					
160	180	205	225	255	305
500	500	500	310	265 310	500

ES 70 S -1.2379

ES 70 S
1.2379
Soft annealed
X153CrMoV12

Hardness:
max 255 HB (860 N/mm²)

Characteristics & application:
Steel for deep drawing dies, sections susceptible to fracturing, shear cutters, trimming dies, thread rolling tools, woodworking tools, extrusion tools, extrusion and injection molds for filled plastic, sprue bushings

Round dimensions

20.5	31	41	51	61	71	81	91	101	111	121	131	141	151	161	171	182	192	202	212
222	232	242	252	262	272	282	292	303	313	323	333	353	363	373	383	403	423	433	443
453	463	483	503	523	553	583	603	653	703	753									

Square dimensions

20	30	40	50	60	70	80	100	120	150	200

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ES 70 S – 1.2379

Flat dimensions																	
15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
150	40	40	40	205	50	305	60	305	70	305	100	305	100	305	360	305	150
	80	60	60	305	80	500	70		100		120		120		500		200
	120	70	150	500	100		100		110		150		150		800		250
	200	100	200		110		150		150		200		200				300
	250	150	250		120		200		200		250		250				400
	500	200	300		160		250		250		300		300				
		250	400		200		300		300		400		400				
		500	500		250		350		350		500		500				
			800		300		400		400				800				
					350		500		500								
					400		800		800								
					500												
					800												

105	110	120	125	130	140	150	160	170	180	200	250	300	400
305	200	150	305	300	300	200	600	600	600	600	600	600	800
	300	200		600	600	250							
	500	250				300							
		400											
		600											

ES 50 W – 1.2436

ES 50 W
1.2436
Soft annealed
X210CrW12

Hardness:
max 255 HB (860 N/mm²)

Characteristics & application:
For cutting and punching tools; very wear-resistant; low deformation during hardening

Round dimensions												
192	202	212	222	232	242	252	262	272	282	303	353	403

Flat dimensions											
20	25	30	40	50	60	70	80	90	100	120	180
200	250	500	500	500	500	500	500	500	500	500	500

ES 370 G – 1.2714

ES 370 G
1.2714
Soft annealed
55NiCrMoV7

Hardness:
max 248 HB (830 N/mm²)

Characteristics & application:
Standard die steel for all types of forging dies, extrusion dies, pressure plates, die holders, hot shear blades

Round dimensions																	
192	202	212	222	232	242	252	262	272	282	292	303	313	323	353	363	373	383
403	413	463	483	503	553	563	603										

Flat dimensions																	
20	30	40	50	60	70	80	90	100	110	120	130	140	150	200	250	300	400
1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1010	1010	1010	1010	1010

ES Aktuell 1000 – 1.2738

ES Aktuell 1000
1.2738
Quenched and tempered
40CrMnNiMo8-6-4

Hardness:

280 - 325 HB (950 - 1100 N/mm²)

Characteristics & application:

Quenched and tempered plastic mold steel, good through-hardenability and low strength reduction from the edge to the core in large cross-sections, good polishability, suitable for graining

Round dimensions													
403	423	453	483	503	523	553	603	653	703	753	803	853	953

Flat dimensions			
205	235	305	355
1010	1250	1250	1250

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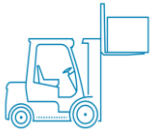
ES Aktuell 1200
Thruhard Supreme 1.2738 High Hard



Material-Details

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ES Aktuell 1200 / Thruhard Supreme 1.2738 High Hard

Quenched and tempered
Special grade

Flat dimensions				
205	255	275	305	355
1010	1010	1250	1010	1010

Hardness:

310 - 355 HB (1050 - 1200 N/mm^2)

Characteristics & application:

Quenched and tempered plastic mold steel with high thermal conductivity, good polishing and graining properties, suitable for large molds where high wear resistance is required, e.g. for bumper molds, dashboards, waste containers and other large molds

Thruhard Supreme HHH

Material-Details
Return to overview

Thruhard Supreme HHH

Quenched and tempered
Special grade

Flat dimensions					
155	205	255	305	355	400
1010	1010	1010	1010	1010	1250

Hardness:

355 - 400 HBW (38 - 42 HRC)

Characteristics & application:

Compared to standard materials such as 1.2738, **Thruhard Supreme(HHH) ®** offers the following advantages:
significantly higher basic hardness and greatly improved through hardenability;
Improved structural homogeneity due to reduction of block segregation;
Polishing reliability even with increased requirements (polishable up to 1200 grit);
Grain resistance even with sensitive grain designs;
Improved thermal conductivity, tempering resistance and weldability;
Nitridable, flame and laser hardenable, hard chromium plating possible;
high basic hardness in delivery condition provides sufficient support for a PVD coating

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ES 275 K – 1.2767

ES 275 K
1.2767
Soft annealed
40NiCrMo16

Hardness:

max 285 HB (965 N/mm²)

Characteristics & application:

Highly hardenable and tough tool steel for plastic molds, cutting tools for thicker dimensions and scrap shear blades

Round dimensions												
192	202	212	222	232	252	272	303	353	383	403	453	503

Flat dimensions																				
20	25	30	35	40	45	50	55	60	65	70	80	85	90	100	110	130	140	205	300	305
1010	1010	1010	1250	1010	1250	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	600	1010

ES 60 S – 1.2842

ES 60 S
1.2842
Soft annealed
90MnCrV8

Hardness:
max 229 HB (770 N/mm²)

Characteristics & application:
Universally applicable oil hardener for cutting and punching tools up to 6 mm sheet thickness, forming and measuring tools

Round dimensions																		
192	202	212	222	232	242	252	262	282	292	303	323	333	353	363	403	423	453	503

Flat dimensions											
20	25	30	40	50	60	70	80	100	120	150	200
505	505	505	505	505	505	1010	1010	1010	120	300	600
			1010	1010	1010						

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HIPERDIE

HIPERDIE

Soft annealed
Special grade

Round dimensions

280 410 440 510 560 600 640 650

Hardness:

max 250 HB (840 N/mm²)

Characteristics & application:

Special CrMoV hot-work tool steel with excellent high-temperature strength and better toughness properties compared to 1.2344 as well as higher thermal conductivity than the classic hot-work tool steels 1.2343, 1.2344 and 1.2367. Compared to the NiCrMoV grades 1.2711/1.2714, **HI**gh **PER**formance **DIE** is characterized by higher wear resistance, comparable to 1.2343.

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THANK YOU!

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